

Notice of Allowability

Application No.

10/691,200

Examiner

LUU MATTHEW

Applicant(s)

HIGGINS, MICHAEL FRANCIS

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the interview on March 11, 2005.
2. ☒ The allowed claim(s) is/are 1-7 and 12-18; which are renumbered to claims 1-14.
3. ☒ The drawings filed on 21 October 2003 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____



**MATTHEW LUU
PRIMARY EXAMINER**

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Stuart P. Kaler on March 11, 2005.

The application has been amended as follows:

-Cancel claims 8-11.

Page 1, section [01], line 3, insert - - 10/691,377 - -.

Page 1, section [01], line 5, insert - - 10/691,396 - -.

Page 1, section [01], line 7, insert - - 10/690,716 - -.

Page 12, section [028], line 2, « 42 » should be - - 402 --.

Ready for Allowance Without Traverse

2. This application is in condition for allowance except for the presence of claims 8-11 to inventions non-elected without traverse. Accordingly, claims 8-11 been cancelled.

Reasons for Allowance

3. The following is an examiner's statement of reasons for allowance:

None of the prior art made of record teaches or suggests a hue angle calculator comprising:

at least one input channel to receive chroma components of image data;

an octant determining unit to determine which octant a given image data occupied;

an angle determining unit to determine a hue angle of the given image data within an octant; and

an angle offset unit to adjust the hue angle for the image data according to the octant the image data was determined to occupy.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

-Semba et al (6,297,826) disclose (Fig. 22) the hue angle changed from 5 degrees to 360 degrees. The color data such as lightness and saturation are also changed in accordance to the changing of the hue angle. Semba et al also disclose (Fig. 24, step 25) the checked hue angle value (A) of the color data is subtracted from

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the hue angle value (D) to obtain a shift amount value E ($E=D-A$). See column 17, lines 17-23. However, Semba et al fail to disclose the claimed "an octant determining unit to determine which octant a given image data occupied; an angle determining unit to determine a hue angle of the given image data within an octant; and an angle offset unit to adjust the hue angle for the image data according to the octant the image data was determined to occupy".

-Ogatsu et al (5,724,442) disclose (Fig. 5) the quadrant judging and inclination judging section (35) performs a quadrant judging, and sends resulting quadrant information to the color reproduction range outer-most lattice point detecting section (36) as a retrieval direction signal (Column 4, lines 52-68). However, Ogatsu et al fail to disclose the claimed "an octant determining unit to determine which octant a given image data occupied; an angle determining unit to determine a hue angle of the given image data within an octant; and an angle offset unit to adjust the hue angle for the image data according to the octant the image data was determined to occupy".

-Vaidyanathan et al (5,448,652) disclose (Fig. 22) the flow chart showing the steps for calculating the hue angle and the hue magnitude of each predetermined interior point of an object.

-Fleming et al (4,439,759) disclose (Fig. 6) a color hue circle, wherein the primary colors, red, green and blue (R, G, B) are located at 120 degrees, 240 degrees, and 360 degrees.

-Kasson (5,450,216) discloses (Fig. 2) the hue angle (H) is defined as the arctangent of the ratio of the two chrominance dimensions ($C2/C1$).

-Matsushiro et al (US 2003/0179212) disclose (Fig. 1) the prediction formula calculation unit (12) includes a hue mapping parameter prediction formula calculation unit (21) that uses the hue mapping parameters stored in the hue mapping parameter storage unit (16) and the hue difference values stored in the hue difference value storage unit (17) to derive a formula for calculating the hue mapping parameter values that will produce an arbitrary set of hue difference values.

-Hoshuyama (US 2003/0058466) discloses (Fig. 1) the identification circuit (150) comprises comparators (151, 152) and a hue angle arithmetic circuit (153). The comparators generate information indicating a quadrant, among four quadrants of a hue space as shown in fig. 4, for example, to which the hue of the input color signal belongs.

-Imamura (5,719,639) discloses (fig. 4) the positions of the subject color, the non-subject color, and the subject color on the Munsell's hue ring.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LUU MATTHEW whose telephone number is (571) 272-7663. The examiner can normally be reached on Flexible Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BELLA MATTHEW can be reached on (571) 272-7663. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M. Luu

A handwritten signature in black ink, appearing to read 'Matthew Luu', with a stylized flourish at the end.

MATTHEW LUU
PRIMARY EXAMINER